

75 Ohm QR® Trunk and Distribution Cable, black PE jacket with integrated figure 8 self-supporting galvanized solid steel messenger



- \*Product complies with the Build America, Buy America Act (BABAA) requirements of the Infrastructure Investment and Jobs Act of 2021 (Pub. L. 117- 58, §§ 70901-70953), or is the subject of a waiver approved by the Secretary of Commerce or designee. Compliance requirements and waiver applicability vary based on government funding program. Check the laws and regulations for your specific program.

## Product Classification

<b>Regional Availability</b>	North America
<b>Product Type</b>	Coaxial hardline cable
<b>Product Brand</b>	QR®
<b>Government Funding</b>	Build America Buy America (BABA) compliant*

## General Specifications

<b>Cable Type</b>	540 Series
<b>Construction Type</b>	Welded
<b>Jacket Color</b>	Black
<b>Short Description</b>	QR 540 JCAM109 SM PR2171

## Dimensions

<b>Cable Length</b>	1,127.76 m   3700 ft
<b>Diameter Over Center Conductor, nominal</b>	3.15 mm   0.124 in
<b>Diameter Over Dielectric, nominal</b>	13.056 mm   0.514 in
<b>Diameter Over Jacket, nominal</b>	15.494 mm   0.61 in
<b>Diameter Over Messenger Wire, nominal</b>	2.769 mm   0.109 in
<b>Diameter Over Outer Conductor, nominal</b>	13.716 mm   0.54 in
<b>Jacket Thickness, nominal</b>	0.889 mm   0.035 in
<b>Outer Conductor Thickness, nominal</b>	0.343 mm   0.014 in

## Electrical Specifications

<b>Capacitance</b>	50.197 pF/m   15.3 pF/ft
<b>Capacitance Tolerance</b>	±1.0 pF/ft

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<b>Characteristic Impedance</b>	75 ohm
<b>Characteristic Impedance Tolerance</b>	±2 ohm
<b>dc Resistance Note</b>	Nominal values based on a standard condition of 20 °C (68 °F)
<b>dc Resistance, Inner Conductor, nominal</b>	3.346 ohms/km   1.02 ohms/kft
<b>dc Resistance, Loop, nominal</b>	5.282 ohms/km   1.61 ohms/kft
<b>dc Resistance, Outer Conductor, nominal</b>	1.936 ohms/km   0.59 ohms/kft
<b>Jacket Spark Test Voltage</b>	5000 Vac
<b>Nominal Velocity of Propagation (NVP)</b>	88 %
<b>Operating Frequency Band</b>	5–3000 MHz
<b>Structural Return Loss</b>	24 dB @ 1003–1218 MHz   24 dB @ 1219–1794 MHz   30 dB @ 5–1002 MHz
<b>Structural Return Loss, Grade N</b>	≥24 dB @ 1003–1218 MHz   ≥24 dB @ 1219–1794 MHz   ≥30 dB @ 5–1002 MHz

## Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
5.0	0.46	0.14
55.0	1.54	0.47
85.0	1.94	0.59
204.0	3.05	0.93
211.0	3.12	0.95
250.0	3.38	1.03
300.0	3.71	1.13
350.0	4.04	1.23
400.0	4.33	1.32
450.0	4.59	1.4
500.0	4.89	1.49
550.0	5.12	1.56
600.0	5.38	1.64
750.0	6.07	1.85
865.0	6.56	2
1002.0	7.12	2.17
1218.0	7.89	2.41
1500.0	9.07	2.76
1794.0	10.11	3.08

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<b>1800.0</b>	10.13	3.09
<b>2000.0</b>	10.81	3.29
<b>2200.0</b>	11.46	3.49
<b>2500.0</b>	12.41	3.78
<b>2700.0</b>	13.03	3.97
<b>3000.0</b>	13.93	4.24

## Material Specifications

<b>Center Conductor Material</b>	Copper-clad aluminum
<b>Dielectric Material</b>	Foam PE
<b>Jacket Material</b>	PE
<b>Messenger Wire Material</b>	Steel
<b>Outer Conductor Material</b>	Aluminum

## Mechanical Specifications

<b>Minimum Bend Radius, bonded</b>	101.6 mm   4 in
<b>Messenger Wire Breaking Strength, minimum</b>	816.466 kg   1800 lb
<b>Pulling Tension, maximum</b>	99.79 kg   220 lb

## Environmental Specifications

<b>Environmental Space</b>	Aerial
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## Packaging and Weights

<b>Packaging Type</b>	Reel
<b>Weight, gross</b>	252.988 kg/km   170 lb/kft

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant



